



Energy Facility Permitting

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November 13, 2008

TO: William Glahn, Director
Office of Energy Security
THROUGH: Marya White, Manager *nmw*
FROM: William Cole Storm, Staff
OES EFP (Tel: 651-296-9535)
RE: Scoping Decision
PINGP Extended Power Uprate & Additional Dry Cask Storage Proposals
PUC Docket Number: E002/CN-08-510
PUC Docket Number: E002/GS-08-690
PUC Docket Number: E002/CN-08-509

ACTION REQUIRED: Signature of the Director on the attached Order, "Environmental Impact Statement Scoping Decision." Once signed, the Department of Commerce (DOC) Office of Energy Security (OES) Energy Facility Permitting (EFP) staff will mail the notice of the order to interested parties.

BACKGROUND: On August 1, 2008, Xcel Energy submitted a large electric power generating plant (LEPGP) Site Permit application to the Minnesota Public Utilities Commission (Commission) for the proposed Prairie Island Nuclear Generating Plant (PINGP) Extended Power Uprate (EPU) project.

The proposed EPU of 164 MWe consists of an 82 MWe net capacity uprate at Unit 1 and an 82 MWe net uprate at Unit 2. Xcel Energy proposes to complete the uprate on Unit 1 during the 2012 refueling outage and on Unit 2 during the 2015 refueling outage.

On August 14, 2008, the Commission considered the completeness of the Site Permit Application at its regularly scheduled meeting. The Commission Order, dated August 15, 2008, adopted the recommendations of the OES, except as modified regarding the advisory task force. In regards to the advisory task force, the Commission decided to take no action at that time.

If the Commission does not name a task force, the rules allow a citizen to request appointment of a task force (Minnesota Rule 7849.5580). The Commission would then need to determine at its next meeting if a task force should be appointed or not.

The proposed uprate project is also required to obtain a Certificate of Need (CON) from the Commission pursuant to sections 216C.05 to 216C.30. Xcel Energy filed an application for a CON with the Commission for the project on May 16, 2008, in accordance with Minnesota Rules Chapter 7829 and 7849.

Along with its May 16, 2008, filing, Xcel Energy also filed a CON for additional dry cask storage at the existing Independent Spent Fuel Storage Installation (ISFSI) at the PINGP. This filing was pursuant to Minn. Stat. § 116C.83, Minn. Stat. § 216B.243, and Minn. Rule 7855.

The PINGP currently has State authorization for enough dry casks (e.g., 29) to store the spent fuel generated until the end of the current operating licenses in 2013 and 2014; there are currently 24 dry casks at the PINGP ISFSI. In order for the reactors to continue operation through a license renewal period to 2033 and 2034, up to an additional 35 dry casks would need to be added to the existing ISFSI.

On July 15, 2008, the Commission accepted the two CON applications as complete (July 22, 2008 order). The docket numbers for the certificate of need for the Extended Uprate and the Additional Dry Cask Storage are E002/CN-08-509 and E002/CN-08-510, respectively.

The OES EFP staff held a Public Information and Environmental Review Scoping Meeting on September 10, 2008, for the three dockets. The purpose of the meeting was to inform the public of the projects, the regulatory processes, and to solicit input from the public as to the scope of the Environmental Impact Statement (EIS). The comment period for the scoping process closed on October 7, 2008.

Thirty-eight persons signed the attendance sheet at the public meeting, with 10 of those persons pre-registering to speak; another five or so persons raised their hands to speak after the pre-registered speakers had their turn. The major area of concern voiced was the health and safety of the people living in close proximity to the PINGP and the associated ISFSI. Other issues included the environmental impacts from appropriating additional water from the Mississippi River, increased temperatures of the discharge water to the river and potential security of the ISFSI. OES staff considered the comments submitted during the public comment period in developing the recommended Scoping Decision.

On September 11, 2008, the Commission received two requests for the establishment of an Advisory Task Force. The first request was from Mr. Sigurd Anderson representing the Communities United for Responsible Energy (CURE) and the second request was from a Mr. John Howe.

On September 25, 2008, the Commission met to consider the petition for the formation of an ATF. After hearing the interested parties and deliberating, the Commission voted to authorize the OES EFP staff to establish an advisory task force; the Commission also accepted the suggested structure and charge presented by OES staff.

The Advisory Task Force (ATF) met formally three times in October 2008, the 8th, 15th and 22nd. The meetings were open to the public, and frequently additional people attended to listen to the discussion. The ATF, through a facilitated process, reviewed the Xcel Energy proposals, discussed relevant issues, and suggested items for the scope of the EIS.

The approach used by the OES facilitator was to have the ATF familiarize themselves with the proposed projects and the regulatory review processes, then work on the task of assisting the OES staff in identifying specific impacts and issues of local concern by documenting the ATF's suggestions on scoping worksheets. The worksheets were developed to aid the ATF in focusing the discussion on the Draft Scoping Document and to serve as a means of memorializing the ATF's suggestions.

The ATF Summary of Work was released by OES staff on Wednesday, November 12, 2008. The Summary of Work includes the completed scoping worksheets and OES staff statement on how the EIS will treat the suggested impacts and issues (Summary of Work, November 12, 2008, Appendix E - EIS Scoping Work Sheets with OES Treatment) of the ATF.

The EIS will verify, summarize, supplement and/or incorporate by reference existing information as outlined in the Scoping EAW and OES Treatment of Scoping Comments Worksheets.

Relevant documents and other information on this docket can be viewed at the PUC Energy Facilities website:

<http://energyfacilities.puc.state.mn.us/Docket.html?Id=19602>

CC: Deb Pile, Supervisor

STATE OF MINNESOTA

OFFICE OF ENERGY SECURITY

**In the Matter of Xcel Energy's Application
for a Certificate of Need and Application for a
LEPGP Site Permit for the proposed EPU &
ISFSI Expansion projects at the Prairie Island
Nuclear Generating Plant.**

**ENVIRONMENTAL IMPACT STATEMENT
SCOPING DECISION**

PUC Docket No. E002/CN-08-510

PUC Docket No. E002/GS-08-690

PUC Docket No. E002/CN-08-509

The above-entitled matter came before the Director of the Office of Energy Security (OES) for a decision on the scope of the Environmental Impact Statement (EIS) to be prepared on the proposed Extended Power Uprate and ISFSI Expansion Projects at the Prairie Island Nuclear Generating Plant.

On August 1, 2008, Xcel Energy submitted a large electric power generating plant (LEPGP) Site Permit application to the Minnesota Public Utilities Commission (Commission) for the proposed Prairie Island Nuclear Generating Plant (PINGP) Extended Power Uprate (EPU) project.

The proposed EPU of 164 MWe consists of an 82 MWe net capacity uprate at Unit 1 and an 82 MWe net uprate at Unit 2. Xcel Energy proposes to complete the uprate on Unit 1 during the 2012 refueling outage and on Unit 2 during the 2015 refueling outage.

On August 15, 2008, the Commission released an Order accepting the Site Permit Application as complete.

The proposed EPU project is also required to obtain a Certificate of Need (CON) from the Commission pursuant to sections 216C.05 to 216C.30. Xcel Energy filed an application for a CON with the Commission for the project on May 16, 2008, in accordance with Minnesota Rules Chapter 7829 and 7849.

Along with its May 16, 2008, filing, Xcel Energy also filed a CON for additional dry cask storage at the existing Independent Spent Fuel Storage Installation (ISFSI) at the PINGP. This filing was pursuant to Minn. Stat. § 116C.83, Minn. Stat. § 216B.243, and Minn. Rule 7855. The PINGP currently has State authorization for enough dry casks (29) to store the spent fuel generated until the end of the current operating licenses in 2013 and 2014; there are currently 24 dry casks at the PINGP ISFSI. In order for the reactors to continue operation through a license renewal period to 2033 and 2034, up to an additional 35 dry casks would need to be added to the existing ISFSI.

On July 15, 2008, the Commission accepted the two CON applications as complete (July 22, 2008 order). The docket numbers for the certificate of need for the Extended Uprate and the Additional Dry Cask Storage are E002/CN-08-509 and E002/CN-08-510, respectively.

Having reviewed the comments submitted and consulted with EFP staff, I hereby make the following Scoping Order.

I. SUMMARY

The EIS will address the environmental impacts of the proposed expansion of the existing ISFSI and continued operation of the PINGP until 2034, including the incremental impacts associated with the 164

MW increase in output due to the proposed EPU.

Federal regulations preempt state authority over radiological health and safety; however, the EIS will address radiological safety issues to help inform the public, help compare generation alternatives, and potentially inform the regulatory process. The EIS will review and summarize existing information in this area but will not include detailed new analysis.

The EIS will assess the potential impacts of temporary, long-term on-site storage (up to 200 years and 98 dry casks) of the additional spent fuel generated at the PINGP during the re-licensing period.

The EIS will assess potential groundwater, surface water and floodplain impacts.

The EIS will include an evaluation of alternatives to meet the stated need for the 164 MW of base-load power that comprises the proposed EPU and an evaluation of generation alternatives to the continued operation of the PINGP until 2034.

For most topics, such as the project description and general environmental impacts, there is a large amount of existing information in the Site Permit Application, the CON Applications, supplemental materials, and other sources. In addition, the NRC will be completing a detailed supplemental EIS as part of its license renewal decision. Therefore, most relevant technical and environmental issues—other than an analysis of generation alternatives—are either (1) addressed in detail in the Site Permit and CON Applications, (2) preempted by federal regulations, (3) subject to detailed review in the federal EIS, or (4) a combination of the above. The EIS will verify, summarize, supplement and incorporate by reference this body of existing information as outlined in the Scoping EAW and OES Treatment of Scoping Comments Worksheets.

II. MATTERS TO BE ADDRESSED IN THE EIS

The EIS on the PINGP EPU and ISFSI Expansion projects will address the following matters:

CHAPTER 1 EXTENDED POWER UPRATE

1.0 INTRODUCTION

1.1 Project Description

- 1.1.1 Description of Power Generating Equipment and Processes
- 1.1.2 Air Emission Control Equipment
- 1.1.3 Water Use
- 1.1.4 Wastewater
- 1.1.5 Solid and Hazardous Waste Generation
 - Excavated materials disposal
- 1.1.6 Fuel Supply
 - Mining, processing, transportation
- 1.1.7 Electrical Interconnection
- 1.1.8 Operation & Maintenance
 - Equipment Inspections/Replacement
 - Water Treatment Chemicals

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- Incident reporting
 - 1.2 Purpose
 - 1.3 Sources of Information
 - 1991 EIS
 - 2.0 REGULATORY FRAMEWORK
 - 2.1 Certificate of Need
 - 2.2 Site Permit Requirement
 - 3.2.1 Environmental Review
 - 3.2.2 Public Hearing
 - 2.3 NRC
 - 2.4 Other Permits
 - Coordination between agencies
 - 2.5 Issues Outside DOC OES EFP Authority
 - 3.0 ALTERNATIVE TO THE EPU
 - 3.1 No-build Alternative
 - 3.2 Demand Side Management
 - Combined w/ other alternatives
 - 3.3 Purchase Power
 - 3.3.1 Long term Purchase Power
 - 3.3.2 Short term Purchase Power
 - 3.4 Alternative Fuels
 - 3.4.1 Fossil Fuel Technologies
 - 3.4.2 Renewable Resource Technologies
 - Biomass
 - 3.5 Up-grading Existing Facilities
 - Blackdog
 - 3.6 New Transmission
 - 3.7 PINGP Waste Heat
 - 4.0 ENVIRONMENTAL SETTING
 - Topography, geology, hydrology, flood plain, meteorological, flora/fauna
 - 5.0 HUMAN AND ENVIRONMENTAL IMPACTS
 - 5.1 Air Quality
 - 5.2 Biological Resources
 - Flora
 - Fauna
 - Rare and Unique Natural Resources
 - 5.3 Culture, Archeological and Historic Resources
 - 5.4 Geology and Soils
 - 5.5 Health and Safety
 - Consumables (plants, animals)
 - EMF
 - Psychology
 - Plant & community emergency planning/preparedness
 - 5.6 Land Use
 - Zoning

- Displacement
- Recreational Areas
- 5.7 Noise
- 5.8 Socioeconomics
- 5.9 Transportation
- 5.10 Visual Impacts and Aesthetics
- 5.11 Water Resources
 - Surface Water
 - Lake Pepin ice cover, TMDL
 - Potential effect of “steam flow reversal”
 - Sediment distribution
 - Thermal discharge effects on dissolved O₂, pathogens, synergies w/ other wastes
 - Higgins Eye Pearly Mussel
 - Potential flooding
 - Groundwater
 - Wetlands
- 5.12 Waste Management and Disposal
 - Wastewater
 - Solid Waste
 - Hazardous Waste
- 5.13 Radiological
 - Monitoring plant operations
 - Review generic health studies
 - Plant waste, handling disposal
- 6.0 SUMMARY OF MITIGATIVE MEASURES and UNAVOIDABLE IMPACTS

CHAPTER 2 ADDITIONAL DRY CASK STORAGE EXPANSION

- 1.0 INTRODUCTION
- 2.0 REGULATORY FRAMEWORK
 - 2.1 Federal Regulatory Processes (NRC)
 - 2.2 Minnesota Regulatory Processes
 - 2.3 Permits and Approvals
- 3.0 PROJECT DESCRIPTION
 - 3.1 Project Setting
 - 3.2 Independent Spent Fuel Storage Installation (ISFSI)
 - Operation & Maintenance
 - Monitoring & Inspection
 - Cask specifications
 - Security procedures
 - 3.3 Spent Fuel Inventory
 - 3.4 Plant Closure and Decommissioning
 - Funding
- 4.0 HUMAN AND ENVIRONMENTAL IMPACTS (NON-RADIOLOGICAL)
 - 4.1 Geology and Soils

- 4.2 Biological and Ecologically Sensitive Resources
- 4.3 Water Resources
- 4.4 Cultural and Historical Resources
- 4.5 Traffic
- 4.6 Noise
- 4.7 Socioeconomics
- 4.8 Visual Impacts and Aesthetics
- 4.9 Health and Safety
- 4.10 Cumulative Impacts
 - 4.10.1 ISFSI Operations
 - 4.10.2 PINGP Operations
- 5.0 RADIOLOGICAL IMPACTS
 - 5.1 Natural Background Radiation near the Prairie Island Plant
 - 5.2 Radiological Monitoring and Radiation Associated with the Independent Spent Fuel Storage Installation
 - 5.3 Analysis of Potential Impacts of Storage Installation Incidents
 - 5.4 Cumulative Impacts
 - 5.4.1 ISFSI Operations
 - 5.4.2 PINGP Operations
- 6.0 INDEPENDENT SPENT FUEL STORAGE INSTALLATION ALTERNATIVES
 - 6.1 Reprocessing Spent Nuclear Fuel
 - 6.2 Private and Off-Site Fuel Storage
 - 6.3 Federal Geologic Depositories, Yucca Mountain
 - 6.4 Alternatives to Increase Storage Pool Capacity
 - 6.5 Alternative Dry Cask System Technologies
 - 6.6 The "No Action" Alternative
- 7.0 PRAIRIE ISLAND NUCLEAR GENERATING PLANT ALTERNATIVES
 - 7.1 PINGP Generation and Role in Minnesota Energy Supply
 - 7.2 Alternatives to Continued Operation of the PINGP
 - 7.3 Comparison of the Environmental Impacts of Alternatives

The above outline is not intended to serve as a "Table of Contents" for the EIS document, and as such, the organization (i.e., structure of the document) of the information and the data may not be similar to that appearing in the EIS.

III. MATTERS NOT WITHIN THE SCOPE OF THE EIS

The following issues will not be addressed in the Environmental Impact Statement.

Prairie Island Plant Radiation and Safety. The EIS will summarize the environmental impacts of continued operation of the PINGP, but will not include a detailed study of these issues because the NRC will complete a detailed evaluation of environmental impacts, and mitigation options, of continued plant operations during its license renewal review. Likewise, the EIS will summarize but not evaluate potential mitigation methods regarding radiation and safety issues of continued operation of the plant because the NRC has sole regulatory jurisdiction over those issues.

Storage Technology, Accidents, Terrorism. The EIS will summarize but not evaluate options for dry cask storage because the NRC has sole jurisdiction over whether and how spent fuel is stored on site at nuclear power plants, including ISFSI design and safety from threats such as accident and terrorism. Likewise, the EIS will not evaluate life-cycle safety of the ISFSI, ISFSI management, or the adequacy of security at the generating plant or the proposed ISFSI.

Nuclear Fuel Cycle. The EIS will not address the impacts of the nuclear fuel cycle because that issue will be addressed in the federal generic and supplemental EIS to be completed during the federal re-licensing review.

Off-Site Alternatives. The EIS will not evaluate ISFSI sites outside the PINGP boundaries because the NRC has jurisdiction over whether such a site can be considered. Additionally, the Commission's authority is "limited to the storage of spent nuclear fuel generated by a Minnesota nuclear generation facility and stored on the site of that facility" (Minnesota Statue 116C.83, subdivision 4, item b).

Economic Feasibility of Alternatives. The analysis of the economic feasibility will cover the same alternatives for which environmental impacts are evaluated, but will incorporate by reference the analysis of the Department of Commerce in the CON proceeding.

Transportation of Spent Fuel from PINGP. While certain matters regarding Yucca Mountain will be described in the EIS, the EIS will not include a discussion of any issues related to the transportation of spent nuclear fuel from Minnesota to Yucca Mountain.

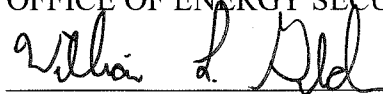
Nuclear Regulatory Commission Standards. While the EIS will reference certain standards and rules promulgated by the NRC, the EIS will not address the adequacy of any federal standards that are applicable to the ISFSI or the generating plant. Nor will the EIS evaluate potential mitigation measures to reduce radiation exposure, accident risks or security requirements.

IV SCHEDULE

The OES staff intends to complete the draft EIS by March 17, 2008.

Signed this 14th day of November, 2008

STATE OF MINNESOTA
OFFICE OF ENERGY SECURITY



William Glahn, Director
Office of Energy Security